

SDP - Data Access and Transfer Confidence Test (SDP3)

Test Objectives:

The objective of this test is to demonstrate the overall capability of ECS to provide users with specific data as requested from various spacecraft and instruments. Data from the TRMM, AM-1 and Landsat7 missions will be acquired via two mechanisms (WWW and a UNIX WS) and supplied on different types of media (CD-ROM, 4MM tape, etc.). These tests are designed to access the services of the DAACs available for this release. Following successful access and product receipt resulting from the various searches and transfer of data, all results will be verified against the criteria selected prior to the start of test activities.

This process involves several key steps, including

- the identification of appropriate data sets through directory, guide and inventory searches
- the ability to browse or visually sub-sample data sets for scientist and non-scientist users
- the ability to specify exactly which data is desired, through identification of explicit parameters, formats, sensors, platforms, and/or geographic areas of data coverage.
- the ability to request the order for the desired data to the ECS including standing and one time orders.
- the ability to receive data from ECS via electronic and hard media means
- the ability to receive Information Management System (IMS) information regarding outstanding and backlog data requests

Support for a wide variety of users must also be facilitated. Users include two primary groups, each with different technical backgrounds.

User Category	Technical Background	Data Volume	Data Frequency
NASA Scientist	Highly technical	High	Frequent
Non-NASA Scientist or Non-Scientist	Very diverse: Some will be highly technically competent, while other users (such as K-12) will generally have a very limited technical background	Moderate to High for scientists, Low to Moderate for others such as K-12 educators	Frequent but not consistent throughout the year

Requirements To Be Verified:

ESN0280	ESN0290	ESN0300	ESN1180
IMS0040	IMS0210	IMS0510	IMS1080
IMS1650	IMS1700	SMC1330	SMC3350

Test Configuration:

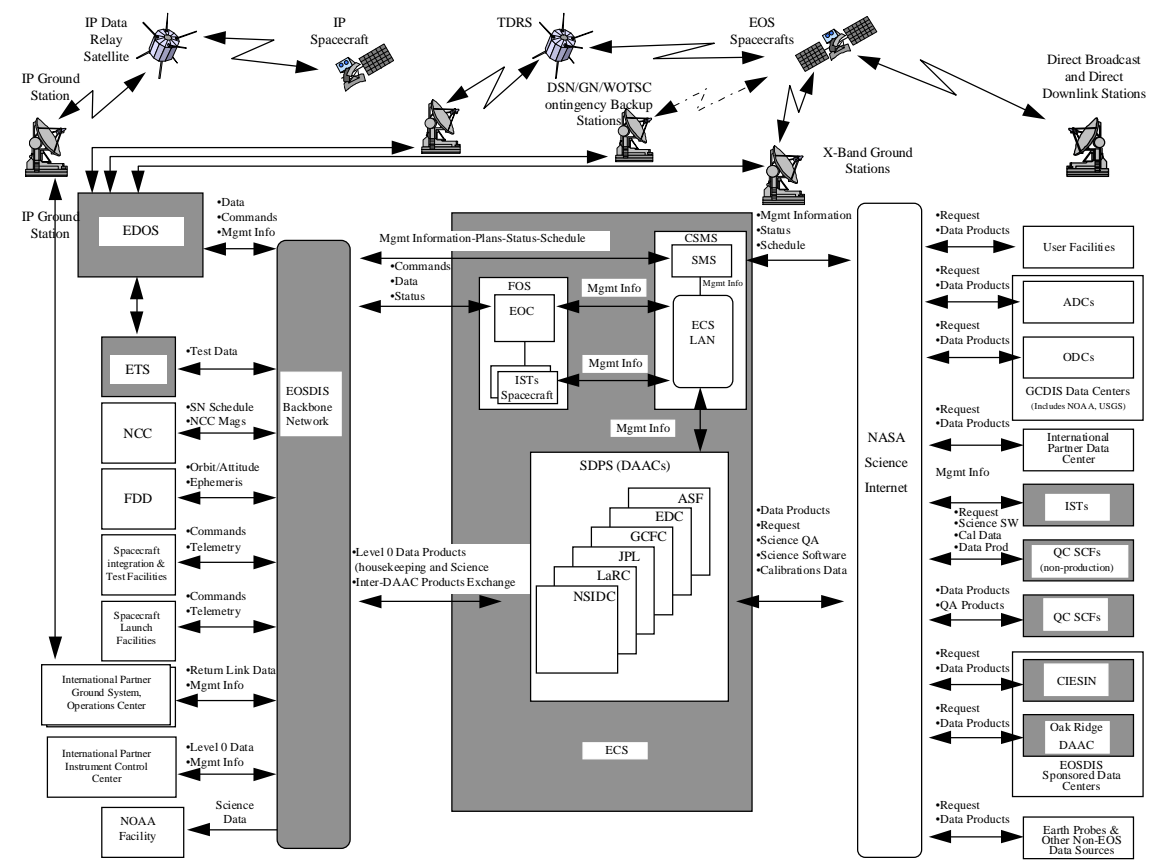


EXHIBIT 3-1. EOS Ground System

Participants and Support Requirements:

Participating Organizations:

M & O Support at EDC DAAC
M & O Support at GSFC DAAC
M & O Support at LaRC DAAC
M & O Support at MSFC SCF

Communications:

Voice: CCL or direct phone line to system personnel
Data: EBnet WAN Routers and associated hardware
IP Addresses: Release A IMS - TBS ; UNIX WS - 192.31.4.70

Equipment and Software:

Software: Release A Client Software configured on each workstation (UNIX)
Hardware: UNIX workstation(s)
486 or better PC
FTP capability
WWW browser

Tools:

TMDB - the test management database will keep track of all test cases and procedures while mapping the mission critical requirements as they are utilized.

XRunner - this tool will be utilized to create test scripts that can be run as often as necessary. In addition, specific test cases may be run at any time (off-shift) with results recorded in a log for later analysis

LoadRunner - this tool will be used to simulate several users accessing data and resources simultaneously

SDP3 Test Log - this tool is a UNIX script that will log times, dates and pertinent information of each data product ordered during test activities

Test Case Summary:

Test Case ID	Mission/ Instrument	Test Description
3.1.1	TRMM/LIS	Integrated Directory and Browse Search Via UNIX WS
3.1.2	TRMM/LIS	Scheduled Standing Order Via WWW
3.1.3	TRMM/CERES	Inventory Search Via UNIX WS
3.1.4	TRMM/VIRS	Browse Inventory Search Via WWW
3.1.5	TRMM/PR	Integrated Directory, Guide and Inventory Search Via UNIX WS
3.1.6	TRMM/TMI	Interactive Browse Data Via WWW
3.2.1	AM-1/ASTER	Inventory Search Via UNIX WS
3.2.2	AM-1/ASTER	Inventory Search Via WWW
3.2.3	AM-1/MISR	Browse Data Via WWW
3.2.4	AM-1/CERES	Integrated Guide & Browse Search Via UNIX WS
3.2.5	AM-1/MODIS	Inventory Search Via UNIX WS
3.2.6	AM-1/MODIS	Browse Data Via WWW
3.3.1	Landsat-7	Scheduled Inventory Search Via UNIX WS
3.3.2	Landsat-7	Interactive Browse Data Via WWW
3.3.3	Landsat-7	Integrated Directory, Guide and Inventory Search Via UNIX WS
3.4.1	ALL	Comparison Of IMS Results & Test Logs For Standing Orders
3.4.2	ALL	Comparison Of IMS Results & Test Logs For Outstanding and Filled Orders
3.4.3	ALL	Comparison Of IMS Results & Test Logs For Data Availability
3.5.1	ALL	Inaccurate Account Information Error Checking
3.5.2	ALL	Invalid Data Set Requests Error Checking
3.5.3	ALL	User Authorization Comparisons Error Checking
3.5.4	ALL	Data Access Privilege Error Checking

Test Data:

Description / Characteristics		Source	File/script name & Location
TRMM	CER09/L4,Temporal,1 mth	TDS or other *	TDS-0051
TRMM	LIS05/L2,Temporal,30 min	same	TDS-0052
TRMM	VIRS/L4,Spatial, multiple bands	same	TDS-0053
TRMM	PR/L3	same	TDS-0054
TRMM	TMI/L4	same	TDS-0055
TRMM	PR/TMI/L3	same	TDS-0056
TRMM	CER09/L4,Temporal,1mth,1 hr sets	same	TDS-0057
TRMM	LIS06/L2,Temporal,1 wk	same	TDS-0058
TRMM	LIS10/L4,Temporal,30 min. sets	same	TDS-0059
AM-1	AST07/L3	same	TDS-0060
AM-1	AST07/L4,Spatial	same	TDS-0061
AM-1	CER05/L4,Spatial	same	TDS-0062
AM-1	CER08/L3	same	TDS-0063
AM-1	MIS07/L4	same	TDS-0064
AM-1	MIS08/L4,Spatial	same	TDS-0065
AM-1	MOD05/L4	same	TDS-0066
AM-1	MOD10/L3,Spatial	same	TDS-0067
AM-1	MOD19/L3	same	TDS-0068
AM-1	MOP05/L3	same	TDS-0069
AM-1	MOP06/L4,Spatial	same	TDS-0070
AM-1	AST12/L4,Spatial,time code errors	same	TDS-0071
AM-1	CER08/L4,Spatial,format errors	same	TDS-0072
AM-1	MIS09/L4,Spatial,misc. errors	same	TDS-0073
AM-1	MOD06/L4,Spatial,frame errors	same	TDS-0074
AM-1	MOP01/L4,Spatial,misc. errors	same	TDS-0075
AM-1	AST07/L4,Temporal,1 wk	same	TDS-0076
AM-1	CER05/L4,Temporal,1 mth	same	TDS-0077
AM-1	MIS07/L4,Temporal,3 mths	same	TDS-0078
AM-1	MOD10/L4,Temporal,1 mth	same	TDS-0079
AM-1	MOPITT/L4,Temporal,1day	same	TDS-0080
Landsat-7	Level OR, 12 hrs	TBD	TBD
ALL	Data available for access	TBD	TBD

* Test data sets have been requested and identified as listed. In addition, data available for use in related Confidence Test Packages provide another source. All data sets available will be identified and secured prior to test activities.

References:

423-41-02 June 2 1994	Functional and Performance Requirements for the EOSDIS Core System
209-CD-001-003	Interface Control Document Between EOSDIS Core System (ECS) and the NASA Science Internet
209-CD-008-004	Interface Control Document Between EOSDIS Core System (ECS) and the Goddard Space Flight Center (GSFC) Distributed Active Archive Center (DAAC)
209-CD-011-004	Interface Control Document Between EOSDIS Core System (ECS) and the Version 0 System
604-CD-001-004	Operations Concept for the ECS Project: Part 1-- ECS Overview
604-CD-002-003	Operations Concept for the ECS Project: Part 2B -- Release B

Test Case Descriptions:

3.1 TRMM Science Data Acquisition

Requirements Verified:

ESN0280 ESN0290 ESN0300 ESN1180
IMS0510 IMS1080 SMC1330

3.1.1 LIS Integrated Directory and Browse Search Via UNIX WS

This test verifies the capability of a science user to access TRMM LIS data by performing a Directory Search as a new user. The data will be obtained via the NASA Science Internet (NSI) from a UNIX workstation. The data will then be requested on 4mm tapes. The data will be coming from the IMS.

Test Procedures:

Test Set-Up:

Step	Station	Action	Expected Results	Comments
1.	PC @ SI&T site	Double click on the “HDS Setup” Icon. Click on the MOTIF MWM and Console Autostart Icons	A console window with the HDS prompt appears.	Logon Procedures will be specific to each DAAC or PC site

Test Execution:

Step	Station	Action	Expected Results	Comments
1.	PC @ SI&T site	Double click on the “HDS Setup” Icon. Click on the MOTIF MWM and Console Autostart Icons	A console window with the HDS prompt appears.	Logon Procedures will be specific to each DAAC or PC site
2.		Enter: “setenv DISPLAY hostname”; CR (Carriage Return)	All information is displayed on the terminal	Where hostname is the actual IP address of your current work-station. Ex: ###.##.#.##:0
3.		Enter: “xhost +” ;CR	The GUI and other interfaces have access to display needed information	
4.		Enter: “telnet eosims.cr.usgs.gov 12345”; CR	Message for choosing graphical interface appears on screen	
5.		Enter: “hostname:0 at the prompt; CR	The graphical interface is chosen and the window for Version 0 IMS Appears	Where hostname is the same IP address used in Step 2. Ex: ###.##.#.##:0
6.		Click on the button labeled “New User”	A screen to enter first and last name appears	
7.		Enter: First and Last name, Click on OK and enter a password; Click on OK	“Starting the IMS” and “Initializing the V0 IMS GUI” messages appear	
8.		Click on User Profile and enter information; Save when information is complete.	This information is stored and is referenced on subsequent logins	
9.		Click on “Directory” for the type of search desired	Directory search screen appears	Searches are Inventory, Directory or Guide

10.		Choose Parameter Information for TRMM LIS data	Information selected for TRMM is displayed on screen	Include Platform/Source, Instrument/Sensor, Processing level, Data Center
11.		Click on the “Save Search” button to save the TRMM LIS parameters	This search may be re-used later for regression purposes	Choose a Save Set name equal to the Test Case ID Number (i.e. 3.1.1)
12.		Click on the “Execute Search” button	The directory search window results appear	
13.		View the communications status screen for the directory search results.	Data Transmission status is indicated	
14.		Verify that each button is highlighted, indicating a successful completion: Open Connection, Sending Message, Receiving Results, Completed Successfully	The transaction is complete and data sets are available for viewing and transfer.	
15.		If the comments button is highlighted, this may indicate that data is continuing to be accessed. Click on the “Comments” button to read additional information concerning data requested.	Additional information is displayed about the data transaction.	
16.		Click on the “View Data” button to view the data sets available	Several data sets and ID information are indicated on the directory results screen	
17.		Verify the data set information matches the TRMM LIS parameter selections from the Search Screen	Data sets are expected to match the input parameters.	

18.		Click on the “Count Button” to select a data set.	The data set chosen is highlighted and the Detail Directory Information Screen appears.	
19.		Select each option and verify the information is based on the parameter information for TRMM LIS as requested.	Detailed information is provided on the screen as each option is chosen.	
20.		Verify the accuracy of the following information: a) Brief Description, b) Attribute, c) Data Center, d) Personnel, e) Reference	All information should correspond to the request entered for the TRMM LIS data.	
21.		Select the “Current Data Set Information” option under the “GO TO” menu.	Directory Results Screen appears after it is selected.	
22.		Compare the Data set information with the detailed guide information.	This information is based on the search data criteria.	
23.		Click on the “Next Data Center” option to view the results of the remaining searches.	The Directory information should match the criteria from the search entered for each data center	
24.		Repeat steps 17 through 23 until all data centers have been chosen.	The data results from each center should match the search criteria inserted.	

Test Termination:

Step	Station	Action	Expected Results	Comments

3.1.2 LIS Scheduled Standing Order Via WWW

This test verifies the capability of a science user to obtain TRMM LIS data through the internet via the WWW. The order will be scheduled as a standing order to be received on 8mm tapes and FTP (compressed) at TBD intervals.

Test Procedures:

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments
1.	PC @ SI&T site	Connect to internet and enter the URL for Release A in the web browser	Release A Home page appears on screen	
2.		Click on the "New Search" button located at the top of the search form	New search is initiated with data presentation options defined	
3.		Scroll down the Search Form until the "Geographic Coverage" portion of the form is visible	"Map Selection" screen appears	
4.		Click anywhere on the global map to initiate the map selection	The map will be used to specify a geographic region	
5.		Click on the western most portion of Alaska that is visible on the map	The upper left corner of search region rectangle is selected	
6.		Click on the eastern most portion of South America that is visible on the map	The lower right corner of search region rectangle is selected	
7.		Click on the "OK Accept_my_input" button	The selected geographic area is entered in search form and user returned to "Search Form" screen	

8.		Scroll down search form until “Parameter” button is visible and Click on “Select Parameter” button	A list of parameters appears on the screen	
9.		Click on the “TBD” parameter		
10.		Click on the purple button w/”DI” on its face to initiate a Guide Search	Guide Search form appears on Screen	
11.		Verify Guide information exists by Reading Information on Screen		
12.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
13.		To return to Parameter List Click on “Back” button on web browser until Parameter List appears		At this time no mechanism exists on the V0 page to return to Search Form or Parameter List from a Guide Search w/out using the Web Browser’s Capabilities
14.		Click on the “OK Accept my input “ button	Returned to “Search Form”	
15.		Click on “Source/Platform”	A list of Sources and Platforms appears	
16.		Scroll down platform options and click on “TRMM”	TRMM is entered on search form as source	
17.		Click on the purple button next to the TRMM option w/”DI” on its face to initiate a Guide Search	Guide Search form appears on Screen	
18.		Verify Guide information exists by Reading Information on Screen		
19.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	

20.		To return to Platform List Click on “Back” button on web browser until Parameter List appears		At this time no mechanism exists on the V0 page to return to Search Form or Parameter List from a Guide Search w/out using the Web Browser’s Capabilities
21.		Click on the “OK” button Accept_my_input “ button	Returned to “Search Form”	
22.		Click on “Sensor/Instrument button		
23.		Find and Click on “LIS” instrument	LIS is selected as instrument for Search	
24.		Click on the purple button next to the LIS option w/”DI” on its face to initiate a Guide Search	Guide Search form appears on Screen	
25.		Verify Guide information exists by Reading Information on Screen		
26.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
27.		To return to Parameter List Click on “Back” button on web browser until Parameter List appears		At this time no mechanism exists on the V0 page to return to Search Form or Parameter List from a Guide Search w/out using the Web Browser’s Capabilities
28.		Click on the “OK” button Accept_my_input “ button	Returned to “Search Form”	
29.		Scroll down to bottom of Search Form and Click on “Start Search” button	Search is initiated for selected data product and “Search in Progress” screen visible	

30.		When “Search Completed Screen is displayed. Click on <u>“DATASET LISTING”</u> line	Dataset listing screen displayed	
31.		Click on the purple button next to the first Data Set n w/”DI” on its face to initiate a Guide Search	Guide Search form appears on Screen	
32.		Verify Guide information exists by Reading Information on Screen		
33.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
34.		Click on “Data Set Listing” button at the top of page	Returned to Data Set Listing page	
35.		Select 2nd Data Set Listed by clicking on “Select Data Set” check box for the 2nd Data Set		
36.		Click on “List” button at the top of the page	Granule List page appears	
37.		Select the first 2 granules listed by clicking on their respective check boxes		
38.		Click on “Shopping Cart” button at top of page to initiated granule ordering	Shopping Cart screen appears	
39.		Click on “Choose Package” button for first Data Set	Package options for selected data set appear	
40.		Click on radio button for package choice w/8mm tape media type		
41.		Scroll to bottom of page and click on “OK Accept_my_Choice” button	Returned to “Shopping Cart” screen	
42.		Scroll to 2nd Data Set and click on “Choose Package” button	Package options for selected data set appear	
43.		Click on radio button for package choice w/FTP (compressed) media type		

44.		Scroll to bottom of page and click on "OK Accept_my_Choice" button	Returned to "Shopping Cart" screen	
45.		Click on "Order" button (Credit Card logo on face of button)	"Order Form" page appears	
46.		Enter pertinent user/billing information as supplied by IT&T member		
47.		Click on "Submit Order" button at bottom of page	Order Submitted Order receipt emailed to testers email acct	
48.		Verify order submitted by recording in testlog Order# and Date of order		
49.		Print out emailed order receipt and file in testlog		

Test Termination:

Step	Station	Action	Expected Results	Comments

3.1.3 CERES Inventory Search Via UNIX WS

This test verifies the capability of a science user to access TRMM CERES data by performing an Inventory Search as an existing user. The data will be obtained via the NSI on a UNIX workstation from the ECS. The data will be received on CD-ROM media.

Test Procedures:

Test Set-Up:

Step	Station	Action	Expected Results	Comments
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Test Execution:

Step	Station	Action	Expected Results	Comments
1 - 8	DAAC TBD	Follow steps 1 through 8 of Test Case 3.1.1.	The Screen to select the type of search is displayed	Follow specific logon procedures of the TBD DAAC
9.		Click on “Inventory” for the type of search desired	Inventory search screen appears	Searches are Inventory, Directory or Guide
10.		Choose Parameter Information for TRMM CERES data	Information selected for TRMM is displayed on screen	Include Platform/Source, Instrument/Sensor, Processing levels 3 or 4 and the Data Center
11.		Click on the “Save Search” button to save the TRMM CERES parameters	The search information is saved and the Communications Screen Appears	Choose a Save Set name equal to the Test Case ID Number (i.e. 3.1.3)
12.		View the Communications Status/Inventory Search screen for results.	The status of the search appears.	
13.		Verify the completion status of each screen portion: Data Center through Completed Successfully.	The Successful Completion Status is highlighted, indicating the transaction was a success. The View Data button should be highlighted.	A View Comments highlighted button indicates additional information. Click on this if highlighted.
14.		Click on the View Data Indicators button.	The Inventory Results Screen appears with granule information of data found.	
15		Verify the No. of Granules, detailed information, coverage and additional information.	Data available for orders, browse and FTP are indicated	

16.		From the list of data sets available, choose three sets of data for ordering by choosing “O” for Order and key in “Y” in the Mark column. Click on Order Data.	The data sets chosen are selected and the Order Data window appears.	
17.		Verify and record the following information: Data Center, Data Set ID, Total # of Packages and Package ID.	This information may be used for future reference.	
18.		Click on Packages Option and select “CD-ROM” for the type of media.	Data is ordered on CD-ROM.	
19.		Click on the Submit Order button.	The Communications Status screen is displayed.	
20.		Verify the completion of each status screen: Open Communication through Completed Successfully	Data is ordered and Contact Information is available.	
21.		Click on Contact Information and record or print information.	Order information is available for future reference.	

Test Termination:

Step	Station	Action	Expected Results	Comments

3.1.4 VIRS Browse Inventory Search Via WWW

This test verifies the capability of a user to interactively browse TRMM VIRS data through the internet via the WWW. This test will utilize the Inventory Search capabilities.

Test Procedures:

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments
1-15		Follow test procedures for Testcase 3.1.2	Search Form Screen displayed with "Source/Platform" button visible	
16.		click on "Source/Platform" button	Platform options appear	
17.		Scroll down platform options and click on "TRMM"	TRMM is entered on search form as source	
18.		Scroll down search form until Sensor/Instrument button is visible		
19.		Click on "Select Sensor/Instrument" button		
20.		Find and Click on "VIRS" instrument	VIRS is selected as instrument for Search	
21.		Click on the purple button next to the VIRS option w/"DI" on its face to initiate a Guide Search	Guide Search form appears on Screen	
22.		Verify Guide information exists by Reading Information on Screen		
23.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	

		To return to Parameter List Click on “Back” button on web browser until Parameter List appears		At this time no mechanism exists on the V0 page to return to Search Form or Parameter List from a Guide Search w/out using the Web Browser’s Capabilities
24.		Click on the “OK” button Accept_my_input “ button	Returned to “Search Form”	
25.		Scroll down to bottom of Search Form and Click on “Start Search” button	Search is initiated for selected data product and “Search in Progress” screen visible	
26.		When “Search Completed Screen is displayed Click on “ <u>DATASET LISTING</u> ” line	Dataset listing screen displayed	
27.		Click on the purple button next to the first Data Set n w/”DI” on its face to initiate a Guide Search	Guide Search form appears on Screen	
28.		Verify Guide information exists by Reading Information on Screen		
29.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
30		Click on “Data Set Listing” button at the top of page	Returned to Data Set Listing page	
31.		Select 2nd Data Set Listed by clicking on “Select Data Set” check box for the 2nd Data Set		
32.		Click on “List” button at the top of the page	Granule List page appears	
33.		Click on “View Browse Product” Button for first granule	“Browse in Progress” screen appears	

34.		When “Browse Product” screen appears compare to supplied test data to verify correct image displayed	Successful retrieval if browse images match	
35.		Return to “Granule List” by clicking on Web Browser’s “Back” button		At this time V0 doesn’t provide any capability to directly return to granule list page
36.		Click on “View Browse Product” Button for second granule	“Browse in Progress” screen appears	
37.		When “Browse Product” screen appears compare to supplied test data to verify correct image displayed	Successful retrieval if browse images match	
38.				
		<u>TO BE CONTINUED</u>		

Test Termination:

Step	Station	Action	Expected Results	Comments

3.1.5 PR Integrated Directory, Guide and Inventory Search Via UNIX WS

This test verifies the capability of a science user to access TRMM PR data by performing a Directory, Guide and Inventory Search as an existing user. The data will be obtained via the NSI on a UNIX workstation from the ECS. The data will then be ordered via FTP in an unstructured text format.

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments
1 - 8	DAAC TBD	Follow steps 1 through 8 of Test Case 3.1.1.	The Screen to select the type of search is displayed	

9.		Click on “Guide” for the type of search desired	Guide search screen appears	Searches are Inventory, Directory or Guide
10.		Choose Parameter Information for TRMM PR data	Information selected for TRMM is displayed on screen	Include Platform/Source, Instrument/Sensor, Processing level, Data Center
11.		Click on the “Save Search” button to save the TRMM PR parameters	This search may be re-used later for regression purposes	Choose a Save Set name equal to the Test Case ID Number (i.e. 3.1.5)
12.		<u>TO BE CONTINUED</u>		

Test Termination:

Step	Station	Action	Expected Results	Comments

3.1.6 TMI Interactive Browse Data Via WWW

This test verifies the capability of a user to interactively browse TRMM TMI data through the internet via the WWW.

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments
1-15		Follow test procedures for Testcase 3.1.2	Search Form Screen displayed with “Source/Platform” button visible	
16.		click on “Source/Platform” button	Platform options appear	
17.		Scroll down platform options and click on “TRMM”	TRMM is entered on search form as source	

18.		Scroll down search form until Sensor/Instrument button is visible		
19.		Click on “Select Sensor/Instrument” button		
20.		Find and Click on “TMI” instrument	TMI is selected as instrument for Search	
21.		Click on the purple button next to the TMI option w/”DI” on its face to initiate a Guide Search	Guide Search form appears on Screen	
22.		Verify Guide information exists by Reading Information on Screen		
23.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
		To return to Parameter List Click on “Back” button on web browser until Parameter List appears		At this time no mechanism exists on the V0 page to return to Search Form or Parameter List from a Guide Search w/out using the Web Browser’s Capabilities
24.		Click on the “OK Accept_my_input “ button	Returned to “Search Form”	
25.		Scroll down to bottom of Search Form and Click on “Start Search” button	Search is initiated for selected data product and “Search in Progress” screen visible	
26.		When “Search Completed Screen is displayed Click on “ <u>DATASET LISTING</u> ” line	Dataset listing screen displayed	
27.		Click on the purple button next to the first Data Set n w/”DI” on its face to initiate a Guide Search	Guide Search form appears on Screen	
28.		Verify Guide information exists by Reading Information on Screen		

29.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
30		Click on “Data Set Listing” button at the top of page	Returned to Data Set Listing page	
31.		Select 2nd Data Set Listed by clicking on “Select Data Set” check box for the 2nd Data Set		
32.		Click on “List” button at the top of the page	Granule List page appears	
33.		Click on “View Browse Product” Button for first granule	“Browse in Progress” screen appears	
34.		When “Browse Product” screen appears compare to supplied test data to verify correct image displayed	Successful retrieval if browse images match	
35.		Return to “Granule List” by clicking on Web Browser’s “Back” button		At this time V0 doesn’t provide any capability to directly return to granule list page
36.		Click on “View Browse Product” Button for second granule	“Browse in Progress” screen appears	
37.		When “Browse Product” screen appears compare to supplied test data to verify correct image displayed	Successful retrieval if browse images match	
38.				
		<u>TO BE CONTINUED</u>		

Test Termination:

Step	Station	Action	Expected Results	Comments

3.2 AM-1 Science Data Acquisition

Requirements Verified:

ESN0280 ESN0290 ESN0300 ESN1180
IMS0510 IMS1080 SMC1330

3.2.1 ASTER Inventory Search Via UNIX WS

This test verifies the capability of a science user to access AM-1 ASTER data by performing an Inventory Search as an existing user. The data will be obtained via the NSI on a UNIX workstation from the ECS. The data will then be ordered on 6250 bpi tapes.

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments
		(TBS)		

Test Termination:

Step	Station	Action	Expected Results	Comments

3.2.2 ASTER Inventory Search Via WWW

This test verifies the capability of a science user to interactively browse and order AM-1 ASTER data through the internet via the WWW using an Inventory Search. The data product will be received on an 8mm tape.

Test Set-Up:

Step	Station	Action	Expected Results	Comments
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Test Execution:

Step	Station	Action	Expected Results	Comments
1.	PC @ SI&T site	Connect to internet and enter the URL for Release A in the web browser	Release A Home page appears on screen	
2.		Click on the "New Search" button located at the top of the search form	New search is initiated with data presentation options defined	
3.		Scroll down the Search Form until the "Geographic Coverage" portion of the form is visible	"Map Selection" screen appears	
4.		Click anywhere on the global map to initiate the map selection	The map will be used to specify a geographic region	
5.		Click on the western most portion of Alaska that is visible on the map	The upper left corner of search region rectangle is selected	
6.		Click on the eastern most portion of South America that is visible on the map	The lower right corner of search region rectangle is selected	
7.		Click on the "OK Accept_my_input " button	The selected geographic area is entered in search form and user returned to "Search Form " screen	
8.		Scroll down search form until "Parameter" button is visible and Click on "Select Parameter" button	A list of parameters appears on the screen	
9.		Click on the "TBD" parameter		
10.		Click on the purple button w/"DI" on its face to initiate a Guide Search	Guide Search form appears on Screen	
11.		Verify Guide information exists by Reading Information on Screen		

12.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
13.		To return to Parameter List Click on “Back” button on web browser until Parameter List appears		At this time no mechanism exists on the V0 page to return to Search Form or Parameter List from a Guide Search w/out using the Web Browser’s Capabilities
14.		Click on the “OK Accept_my_input “ button	Returned to “Search Form”	
15.		Click on “Source/Platform”	A list of Sources and Platforms appears	
16.		Scroll down platform options and click on “AM-1”	AM-1 is entered on search form as source	
17.		Click on the purple button next to the AM-1 option w/”DI” on its face to initiate a Guide Search	Guide Search form appears on Screen	
18.		Verify Guide information exists by Reading Information on Screen		
19.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
20.		To return to Platform List Click on “Back” button on web browser until Parameter List appears		At this time no mechanism exists on the V0 page to return to Search Form or Parameter List from a Guide Search w/out using the Web Browser’s Capabilities
21.		Click on the “OK Accept_my_input “ button	Returned to “Search Form”	
22.		Click on “Sensor/Instrument button		
23.		Find and Click on “ASTER” instrument	ASTER is selected as instrument for Search	

24.		Click on the purple button next to the ASTER option w/"DI" on its face to initiate a Guide Search	Guide Search form appears on Screen	
25.		Verify Guide information exists by Reading Information on Screen		
26.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
27.		To return to Parameter List Click on "Back" button on web browser until Parameter List appears		At this time no mechanism exists on the V0 page to return to Search Form or Parameter List from a Guide Search w/out using the Web Browser's Capabilities
28.		Click on the "OK Accept_my_input" button	Returned to "Search Form"	
29.		Scroll down to bottom of Search Form and Click on "Start Search" button	Search is initiated for selected data product and "Search in Progress" screen visible	
30.		When "Search Completed Screen is displayed. Click on <u>"DATASET LISTING"</u> line	Dataset listing screen displayed	
31.		Click on the purple button next to the first Data Set n w/"DI" on its face to initiate a Guide Search	Guide Search form appears on Screen	
32.		Verify Guide information exists by Reading Information on Screen		
33.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
34.		Click on "Data Set Listing" button at the top of page	Returned to Data Set Listing page	

35.		Select 2nd Data Set Listed by clicking on “Select Data Set” check box for the 2nd Data Set		
36.		Click on “List” button at the top of the page	Granule List page appears	
37.		Select the first 2 granules listed by clicking on their respective check boxes		
38.		Click on “Shopping Cart” button at top of page to initiated granule ordering	Shopping Cart screen appears	
39.		Click on “Choose Package” button for first Data Set	Package options for selected data set appear	
40.		Click on radio button for package choice w/8mm tape media type		
41.		Scroll to bottom of page and click on “OK Accept_my_Choice” button	Returned to “Shopping Cart” screen	
42.		Scroll to 2nd Data Set and click on “Choose Package” button	Package options for selected data set appear	
43.		Click on radio button for package choice w/FTP (compressed) media type		
44.		Scroll to bottom of page and click on “OK Accept_my_Choice” button	Returned to “Shopping Cart” screen	
45.		Click on “Order” button (Credit Card logo on face of button)	“Order Form” page appears	
46.		Enter pertinent user/billing information as supplied by IT&T member		
47.		Click on “Submit Order” button at bottom of page	Order Submitted Order receipt emailed to testers email acct	
48.		Verify order submitted by recording in testlog Order# and Date of order		

49.		Print out emailed order receipt and file in testlog		
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Test Termination:

Step	Station	Action	Expected Results	Comments

3.2.3 MISR Browse Data Via WWW

This test verifies the capability of a science user to view AM-1 MISR data through the internet via the WWW. The browse product will be specified by entering particular sensors, parameters and geographical locations.

Test Procedures:

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments
1-15		Follow test procedures for Testcase 3.1.2	Search Form Screen displayed with "Source/Platform" button visible	
16.		click on "Source/Platform" button	Platform options appear	
17.		Scroll down platform options and click on "AM-1"	AM-1 is entered on search form as source	
18.		Scroll down search form until Sensor/Instrument button is visible		
19.		Click on "Select Sensor/Instrument" button		

20.		Find and Click on “MISR” instrument	MISR is selected as instrument for Search	
21.		Click on the purple button next to the MISR option w/”DI” on its face to initiate a Guide Search	Guide Search form appears on Screen	
22.		Verify Guide information exists by Reading Information on Screen		
23.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
		To return to Parameter List Click on “Back” button on web browser until Parameter List appears		At this time no mechanism exists on the V0 page to return to Search Form or Parameter List from a Guide Search w/out using the Web Browser’s Capabilities
24.		Click on the “OK Accept_my_input “ button	Returned to “Search Form”	
25.		Scroll down to bottom of Search Form and Click on “Start Search” button	Search is initiated for selected data product and “Search in Progress” screen visible	
26.		When “Search Completed Screen is displayed Click on “ <u>DATASET LISTING</u> ” line	Dataset listing screen displayed	
27.		Click on the purple button next to the first Data Set n w/”DI” on its face to initiate a Guide Search	Guide Search form appears on Screen	
28.		Verify Guide information exists by Reading Information on Screen		
29.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	

30		Click on “Data Set Listing” button at the top of page	Returned to Data Set Listing page	
31.		Select 2nd Data Set Listed by clicking on “Select Data Set” check box for the 2nd Data Set		
32.		Click on “List” button at the top of the page	Granule List page appears	
33.		Click on “View Browse Product” Button for first granule	“Browse in Progress” screen appears	
34.		When “Browse Product” screen appears compare to supplied test data to verify correct image displayed	Successful retrieval if browse images match	
35.		Return to “Granule List” by clicking on Web Browser’s “Back” button		At this time V0 doesn’t provide any capability to directly return to granule list page
36.		Click on “View Browse Product” Button for second granule	“Browse in Progress” screen appears	
37.		When “Browse Product” screen appears compare to supplied test data to verify correct image displayed	Successful retrieval if browse images match	
38.				
		<u>TO BE CONTINUED</u>		

Test Termination:

Step	Station	Action	Expected Results	Comments

3.2.4 CERES Integrated Guide and Browse Search Via UNIX WS

This test verifies the capability of a science user to access AM-1 CERES data via NSI external from the ECS. The data product will be ordered via FTP in a binary unstructured format.

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments

Test Termination:

Step	Station	Action	Expected Results	Comments

3.2.5 MODIS Inventory Search Via UNIX WS

This test verifies the capability of a science user to access AM-1 MODIS data via NSI external from the ECS. The data product will be ordered via FTP in a binary sequential format.

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments

Test Termination:

Step	Station	Action	Expected Results	Comments

3.2.6 MODIS Browse Data Via WWW

This test verifies the capability of a user to view AM-1 MODIS data through the internet via the WWW from an SI&T site. The browse product will be specified by entering particular sensors, parameters and geographical locations.

Test Procedures:

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments
1-15		Follow test procedures for Testcase 3.1.2	Search Form Screen displayed with "Source/Platform" button visible	
16.		click on "Source/Platform" button	Platform options appear	
17.		Scroll down platform options and click on "AM-1"	AM-1 is entered on search form as source	
18.		Scroll down search form until Sensor/Instrument button is visible		
19.		Click on "Select Sensor/Instrument" button		
20.		Find and Click on "MODIS" instrument	MODIS is selected as instrument for Search	
21.		Click on the purple button next to the MODIS option w/"DI" on its face to initiate a Guide Search	Guide Search form appears on Screen	
22.		Verify Guide information exists by Reading Information on Screen		
23.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	

		To return to Parameter List Click on “Back” button on web browser until Parameter List appears		At this time no mechanism exists on the V0 page to return to Search Form or Parameter List from a Guide Search w/out using the Web Browser’s Capabilities
24.		Click on the “OK” button	Returned to “Search Form”	
25.		Scroll down to bottom of Search Form and Click on “Start Search” button	Search is initiated for selected data product and “Search in Progress” screen visible	
26.		When “Search Completed Screen is displayed Click on “ <u>DATASET LISTING</u> ” line	Dataset listing screen displayed	
27.		Click on the purple button next to the first Data Set n w/”DI” on its face to initiate a Guide Search	Guide Search form appears on Screen	
28.		Verify Guide information exists by Reading Information on Screen		
29.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
30.		Click on “Data Set Listing” button at the top of page	Returned to Data Set Listing page	
31.		Select 2nd Data Set Listed by clicking on “Select Data Set” check box for the 2nd Data Set		
32.		Click on “List” button at the top of the page	Granule List page appears	
33.		Click on “View Browse Product” Button for first granule	“Browse in Progress” screen appears	

34.		When "Browse Product" screen appears compare to supplied test data to verify correct image displayed	Successful retrieval if browse images match	
35.		Return to "Granule List" by clicking on Web Browser's "Back" button		At this time V0 doesn't provide any capability to directly return to granule list page
36.		Click on "View Browse Product" Button for second granule	"Browse in Progress" screen appears	
37.		When "Browse Product" screen appears compare to supplied test data to verify correct image displayed	Successful retrieval if browse images match	
38.				
		<u>TO BE CONTINUED</u>		

Test Termination:

Step	Station	Action	Expected Results	Comments

3.3 Landsat-7 Data Acquisition

Requirements Verified:

ESN0280 ESN0290 ESN0300 ESN1180
IMS0510 IMS1080 SMC1330

3.3.1 Landsat-7 Scheduled Inventory Search Via UNIX WS

This test will verify the capability of a science user to access Landsat-7 data by performing a Scheduled Inventory Search as an existing user. The data will be obtained via the NSI on a UNIX workstation at a TBD DAAC. The data product will then be requested on a 4mm tape.

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments

Test Termination:

Step	Station	Action	Expected Results	Comments

3.3.2 Landsat-7 Interactive Browse Data Via WWW

This test verifies the capability of a user to view Landsat-7 data through the internet on via the WWW. The browse product will be specified by entering particular sensors, parameters and geographical locations.

Test Procedures:

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments
1-15		Follow test procedures for Testcase 3.1.2	Search Form Screen displayed with "Source/Platform" button visible	

16.		click on “Source/Platform” button	Platform options appear	
17.		Scroll down platform options and click on “AM-1”	AM-1 is entered on search form as source	
18.		Scroll down search form until Sensor/Instrument button is visible		
19.		Click on “Select Sensor/Instrument” button		
20.		Find and Click on “MODIS” instrument	MODIS is selected as instrument for Search	
21.		Click on the purple button next to the MODIS option w/”DI” on its face to initiate a Guide Search	Guide Search form appears on Screen	
22.		Verify Guide information exists by Reading Information on Screen		
23.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
		To return to Parameter List Click on “Back” button on web browser until Parameter List appears		At this time no mechanism exists on the V0 page to return to Search Form or Parameter List from a Guide Search w/out using the Web Browser’s Capabilities
24.		Click on the “OK Accept_my_input “ button	Returned to “Search Form”	
25.		Scroll down to bottom of Search Form and Click on “Start Search” button	Search is initiated for selected data product and “Search in Progress” screen visible	
26.		When “Search Completed Screen is displayed Click on “ <u>DATASET LISTING</u> ” line	Dataset listing screen displayed	

27.		Click on the purple button next to the first Data Set n w/"DI" on its face to initiate a Guide Search	Guide Search form appears on Screen	
28.		Verify Guide information exists by Reading Information on Screen		
29.		Verify Guide information retrievable by Clicking first highlighted html	Relevant Document appears	
30		Click on "Data Set Listing" button at the top of page	Returned to Data Set Listing page	
31.		Select 2nd Data Set Listed by clicking on "Select Data Set" check box for the 2nd Data Set		
32.		Click on "List" button at the top of the page	Granule List page appears	
33.		Click on "View Browse Product" Button for first granule	"Browse in Progress" screen appears	
34.		When "Browse Product" screen appears compare to supplied test data to verify correct image displayed	Successful retrieval if browse images match	
35.		Return to "Granule List" by clicking on Web Browser's "Back" button		At this time V0 doesn't provide any capability to directly return to granule list page
36.		Click on "View Browse Product" Button for second granule	"Browse in Progress" screen appears	
37.		When "Browse Product" screen appears compare to supplied test data to verify correct image displayed	Successful retrieval if browse images match	
38.				
		<u>TO BE CONTINUED</u>		

Test Termination:

Step	Station	Action	Expected Results	Comments
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3.3.3 Landsat-7 Integrated Directory, Guide and Inventory Search Via UNIX WS

This test verifies the capability of a science user to access Landsat-7 data by performing an Inventory Search as an existing user. The data will be obtained via the NSI on a UNIX workstation from the ECS. The data will be ordered via FTP in an unstructured text format.

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments

Test Termination:

Step	Station	Action	Expected Results	Comments

3.4 Verification of Order Information Using IMS Reports and Test Logs

Requirements Verified:

IMS1650 IMS1700 SMC1330

3.4.1 Comparison of IMS Results & Test Logs For Standing Orders

This test verifies that the IMS reports containing standing orders and data availability are complete and accurate. The IMS reports will be compared against the test log for order information.

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments

Test Termination:

Step	Station	Action	Expected Results	Comments

3.4.2 Comparison of IMS Results & Test Logs For Outstanding and Filled Orders

This test verifies that the IMS reports containing outstanding orders and filled orders are complete and accurate. The IMS reports will be compared against the test log for order information.

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments

Test Termination:

Step	Station	Action	Expected Results	Comments

3.4.3 Comparison of IMS Results & Test Logs For Data Availability

This test verifies that the IMS reports containing data availability information are complete and accurate. The IMS reports will be compared against the test log for order information.

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

Step	Station	Action	Expected Results	Comments

Test Termination:

Step	Station	Action	Expected Results	Comments

3.5 Error Checking

Requirements Verified:

IMS0040 IMS0210

3.5.1 Inaccurate Account Information

Inaccurate account information (invalid name and valid account number, valid name and invalid account number etc.) will be entered as an attempt to connect with the system.

Test Set-Up:

Step	Station	Action	Expected Results	Comments
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Test Execution:

Step	Station	Action	Expected Results	Comments

Test Termination:

Step	Station	Action	Expected Results	Comments

3.5.2 Invalid Data Set Requests

Invalid data set requests (invalid parameters, unselected data set before request to browse or order etc.) will be entered to observe system safeguards and error checks.

Test Set-Up:

Step	Station	Action	Expected Results	Comments

Test Execution:

1.	PC @ SI&T site	Connect to internet and enter the URL for Release A in the web browser	Release A Home page appears on screen	
2.		Click on the "New Search" button located at the top of the search form	New search is initiated with data presentation options defined	
3.		Scroll down the Search Form until the "Geographic Coverage" portion of the form is visible	"Map Selection" screen appears	
4.		Click on the "Radio Button" for "Geographic Coordinates"		

5.		Enter the following coordinates: -10 for Northern Longitude, 158 for Eastern Longitude, 109 for Western Longitude and -40 for Southern-most Latitude.		
6.		Scroll to Bottom of Search Form and Click on “Start Search” button		
7.		Verify by observation that Error Message indicating not enough parameters entered for valid search appears		
8.		Click on “Back” button on web browser to return to “Search Form”		
9.		Click on “Data Center”		
10.		Select “ORNL” and Click on “Accept my Selection” button		
11.		Click on “Data Set”		
12.		Select 10th Data Set choice and Click on “Please Accept my input and return to Search Form” button		
13.		Click on “Start Search” button		
14.		Verify by observation that “Search Successful”		
15.		If Search Unsuccessful Click on “Back” button of Web Browser and Re-Select the next Data Set option		
16.		Record the First DataSet request along with any other NON successful DataSet requests encountered until a Successful DataSet request is retrieved		

17.		Verify by observation that DataSet request successful If unsuccessful repeat steps 15 and 16 until successful		
18.		Click on “Back” button of web browser until “Old Search” Form appears		
19.		Click on Data Center option		
20.		Un-Select ORNL and Select GFSC .		
21.		Click on “Ok Accept my input” Button		
22.		Click on “Data Set” button		
23.		Select the 10th Data Set option and Click on “Accept my input and Return to Search Form” button		
24.		Click on “Start Search” button		
25.		Verify Search Successful by observation		
26.		If Search Unsuccessful Click on “Back” button of Web Browser and Re-Select the <u>NEXT</u> Data Set option		
27.		Record the First UnSuccessful DataSet request along with any other NON successful DataSet requests encountered until a Successful DataSet request is retrieved		
28.		Verify by observation that DataSet request successful If unsuccessful repeat steps 26 and 27 until successful		

30.		When “Search Completed Screen is displayed. Click on “ <u>DATASET LISTING</u> ” line	Dataset listing screen displayed	
29.		Click on “List” button located next to “Show Granules” from Selected Data Set option		
30.		Verify by observation that Error message appears regarding the lack of DataSet Selection		
31.		Click on “Back” button of browser to return to DataSet List		
32.		Click on picture of Shopping Cart to add to shopping list		
33.		Verify by observation that Error message appears regarding the lack of DataSet Selection		

Test Termination:

Step	Station	Action	Expected Results	Comments

3.5.3 User Authorization Comparisons

To Be Determined

3.5.4 Data Access Privileges

Attempts to access data through the internal server for IMS will be made.

More information To Be Supplied

Requirements:

ESN-0280	The ESN shall provide file transfer and management service and as a minimum shall include the capability to transfer the following data types: a. Unstructured Text b. Binary Unstructured c. Binary Sequential d. Sequential Text
ESN-0290	The file transfer and management service shall be available in interactive and non-interactive services.
ESN-0300	The file transfer and management non-interactive services shall be able to be scheduled.
ESN-1180	The ESN shall interoperate with NSI to provide user access to ECS.
IMS-0040	The IMS shall verify user authorization by validation of inputs with information as supplied by the SMC.
IMS-0210	The IMS shall allow data access privileges to be configurable by user and data type for: a. Read b. Write c. Update d. Delete e. Any combination of the above
IMS-0510	The IMS shall provide tools for research planning and data search, to include at a minimum: a. Data acquisition schedules and plans

	<ul style="list-style-type: none"> b. The capability to map specified geophysical parameters to the appropriate instrument and/or Standard Product c. Descriptive information on instruments and geophysical parameters available in Standard Products d. Climatology information f. Geographic reference aids g. Spacecraft location projections.
IMS-1080	The IMS shall accept requests for the acquisition of data to be processed one time or as standing orders
IMS-1650	<p>MS operations data shall contain information on:</p> <ul style="list-style-type: none"> a. System utilization at the IMS b. Outstanding data distribution requests c. Outstanding processing requests d. Outstanding data acquisition requests
IMS-1700	<p>The IMS shall provide the capability to generate reports on:</p> <ul style="list-style-type: none"> a. The backlog of data distribution requests b. The backlog of processing requests c. The backlog of data acquisition requests d. Data quality assessment e. Daily IMS operations summaries
SMC-1330	<p>The SMC shall support and maintain the information for end-to-end data ingest, processing, reprocessing , archive and data distribution for each products, including at a minimum :</p> <ul style="list-style-type: none"> a. Product information c. Product generation information d. Product delivery information
SMC-3350	<p>The SMC shall generate, maintain, and update performance criteria and responses to performance deficiencies for system, site and element resources and activities such as:</p> <ul style="list-style-type: none"> a. data collection b. Product generation, QA validation c. Reprocessing d. Data delivery to DAAC's and to users e. Response to user requests f. Response to TOOs g. Response to field experiments h. Response to emergency situations